Fish Passage Center

Weekly Report #08 - 20

July 18, 2008

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 2% and 99% of average at individual sub-basins over the first half of July. Precipitation above The Dalles has been 47% of average over July. Over the entire water year, precipitation has generally been near average.

Table 1. Summary of July 1-14 precipitation and cumulative October through July precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2008 July 1-14		Water Year 2008 October 1, 2007 to July 14, 2008	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.56	70	20.71	97
Snake River Above Ice Harbor	0.03	7	15.14	98
Columbia Above The Dalles	0.26	47	19.82	98
Kootenai	0.57	67	19.31	88
Clark Fork	0.22	42	15.33	104
Flathead	0.71	99	19.69	101
Pend Oreille/ Spokane	0.18	28	27.71	99
Central Washington	0.03	16	5.78	71
Snake River Plain	0.01	2	7.72	78
Salmon/Boise/ Payette	0.09	24	17.98	100
Clearwater	0.05	7	27.49	100
SW Washington Cascades/ Cowlitz	0.42	67	60.95	92
Willamette Valley	0.02	4	57.14	102

Table 2 displays the June Final and July Final runoff volume forecasts for multiple reservoirs. Water Supply Forecasts increased at all but two locations (Libby and Brownlee) between the June Final and July Final forecasts with Dworshak showing the biggest change by increasing 18% from the June Final to July Final forecast. The current forecast (July Final) at The Dalles between January and July is 101000 Kaf (94% of average).

Table 2. June Final and July Final Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	June Final		July Final	
	% Average (1971-2000)	Probable Runoff Volume (Kaf)	% Average (1971-2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	92	98200	94	101000
Grand Coulee (Jan-July)	95	59800	97	61300
Libby Res. Inflow, MT (Jan-July)	93	5840	90	5700
Hungry Horse Res. Inflow, MT (Jan-July)	99	2200	108	2410
Lower Granite Res. Inflow (Apr- July)	102	21900	106	22900
Brownlee Res. Inflow (Apr-July)	76	4780	68	4270
Dworshak Res. Inflow (Apr-July)	109	2880	127	3370

The Biological Opinion spring flow periods have ended in the lower Snake River (Lower Granite), mid Columbia (Priest Rapids) and lower (McNary) Columbia River. The spring flow objectives this spring were 100 Kcfs at Lower Granite, 260 Kcfs at McNary, and 135 Kcfs at Priest Rapids. Over the spring period, flows averaged 98.4 kcfs at Lower Granite, 286.7 kcfs at McNary, and 167.6 Kcfs at Priest Rapids.

The summer Biological Opinion flow at Lower Granite Dam is determined by the June Final Water Supply Forecast and is 52.5 Kcfs this year. Flows at Lower Granite Dam averaged 87.8 Kcfs between June 21st, 2008 and July 16th, 2008. Flows at Lower Granite averaged 51.5 Kcfs last week.

The summer Biological Opinion flow at McNary Dam is 200 Kcfs and began on July 1, 2008. Flows at McNary Dam have averaged 254.8 Kcfs over the summer flow period (July 1-16) and have averaged 209.6 Kcfs last week.

Grand Coulee Reservoir is at 1289 feet (7-16-08) and has refilled 0.9 feet over the last week. Outflows at Grand Coulee have ranged between 74.2 and 145.9 Kcfs over the last week. Inflows last week have ranged between 124.5 Kcfs and 168.9 Kcfs. The end of August draft elevation will be 1280 feet at Grand Coulee this year.

The Libby Reservoir is currently at elevation 2444.8 feet (7-16-08) and refilled 0.4 feet last week. Outflows at Libby are currently 13 Kcfs. Inflows at Libby have ranged between 13.7 Kcfs and 19 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3558.8 ft (7-16-08) and has drafted 0.7 feet last week. Outflows are currently 6.4-6.5 Kcfs; inflows ranged between 1.9 Kcfs and 7.7 Kcfs last week.

Dworshak is currently at an elevation of 1597.1 feet (7-16-08) and has drafted 2.4 feet last week. Outflows at Dworshak have been approximately 9.5 Kcfs (full powerhouse) over most of the last week; however were increased to approximately 12 Kcfs late on 7-16-08. Outflows are expected to stay at 12 Kcfs for the next week. Dworshak inflows have ranged between 4.5 and 7.4 Kcfs last week.

The Brownlee Reservoir is at an elevation of 2070.4 feet (July 16th, 2008), and has drafted 0.6 feet last week. Outflows at Brownlee Dam have been 8.7 to 14.5 Kcfs over the last week. Inflows at Brownlee Dam have been 9.2 to 12.6 Kcfs over the last week.

Spill: The spring spill period in the Snake River ended on June 20th and the summer spill season was initiated on June 21, 2008. The Court Order calls for the following spill levels at the Federal Snake River Projects:

Project	Day/Night Spill
Lower Granite	18 Kcfs/18 Kcfs
Little Goose	30%/30%
Lower Monumental	17 Kcfs/17 Kcfs
Ice Harbor	30%/30% vs 45 Kcfs/Gas Cap Study

As Columbia and Snake River flow recedes the hydrosystem has been able to implement the Court Ordered spill program. On July 17th, Dworshak Dam outflows were increased to 12.0 Kcfs, which is above hydraulic capacity, resulting in 2.5 Kcfs spill. Flows continue to be below the powerhouse capacity at Lower Granite Dam and, thus, the project has been spilling to the Court Order. Little Goose Dam has spilled 30% of daily flow over the past week. There were a few days this week where the summer spill volume of 17 Kcfs was not met at Lower Monumental, due to load factoring in the early hours. There were no exceedances in TDG at either the Lower Monumental tailrace or the Ice Harbor forebay monitors. Ice Harbor Dam has generally met the court ordered levels of 45 Kcfs daytime spill and gas cap nighttime spill alternating with 30% instantaneous spill. Due to low flows and powerhouse minimums, there are times where Ice Harbor cannot spill 45 Kcfs during the daytime. However, regardless of how low flows are, Ice Harbor Dam must spill a minimum 15.2 kcfs. Finally, the 30%/30% vs. 45 Kcfs/Gas Cap study was completed on July 17th. Spill at Ice Harbor Dam will be 45 Kcfs daytime spill and gas cap nighttime spill for the remainder of the season.

Court ordered spring spill at the lower Columbia projects ended on June 30, 2008. Summer spill was initiated on July 1, 2008. The Court Order calls for the following summer spill levels at the Federal Lower Columbia River Projects

Project	Day/Night Spill
McNary	60%/60% vs 40%/40%
John Day	30%/30% vs 40%/40% test days
The Dalles	40%/40%

Bonneville	85 Kcfs/Gas Cap

Summer spill at McNary was initiated on June 21, 2008 to facilitate the conduct of a research study comparing spill levels of 40%/40% versus 60%/60%. The project generally met the Court ordered spill this past week of 40%/40% versus 60%/60% spill. At John Day Dam spill has generally met the Court Ordered 30%/30% versus 40%/40% spill. Spill at The Dalles Dam met the Court Order spill of 40% for most of the week. Those days where spill was less than 40% were due to TDG exceedances at the Bonneville Forebay TDG monitor. The summer spill levels at Bonneville Dam of 85 Kcfs during daytime hours and gas cap spill at night were initiated on June 21, 2008 to facilitate the conduct of research at this project. Bonneville Dam has spilled to the 85 Kcfs/gas cap level throughout the week. However, as the week progressed, the gas cap was reduced from about 110 Kcfs to about 90 Kcfs, due to TDG levels in excess of 115% at the Camas Washougal Gauge from July 13th through July 15th. Since July 15th, the gas cap has been increased to approximately 100 Kcfs.

Gas bubble trauma (GBT) monitoring at Lower Granite Dam has concluded for the year. Sampling occurred at all other Snake River monitoring sites, Rock Island Dam in the Mid Columbia, and at McNary and Bonneville dams in the lower Columbia. One fish (out of 102 sampled) was detected with minor signs of GBT in their non paired fins at Bonneville Dam on July 12th. On July 10th, 3 fish (out of 100 sampled) were detected with minor signs of GBT in their non paired fins at Rock Island Dam. Rock Island Dam also detected 1 fish (out of 100 sampled) with minor signs of GBT in its non paired fins on July 14th.

Smolt Monitoring: Subyearling Chinook numbers have decreased at all SMP sampling locations in the Snake River and Columbia River over the past week.

At Snake River SMP sites the daily passage indices for subyearling Chinook averaged about 3,500 per day this past week compared to nearly 10,000 per day the previous week.Passage indices showed similar declines from last week to this week at Little Goose and Lower Monumental dams as well.

At Rock Island Dam indices for subyearling Chinook dropped slightly from 380 per day two weeks ago to 330 per day this past week. At the lower Columbia River dams indices for subyearling Chinook were down as well, but relatively large numbers of fish still continue to pass those projects. At McNary the subyearling Chinook index averaged 76,000 per day this week compared to over 150,000 per day last week. While at John Day the index average 36,000 per day this week down from 57,000 per day last week. And at Bonneville Dam subyearling Chinook passage indices averaged 42,000 per day over the past week, compared with 65,000 per day the previous week.

Transportation began this week at McNary Dam as flows dropped to below 220 kcfs. At Snake River collector projects transportation is ongoing. Temperature monitoring at John Day and Bonneville dams will be used to determine the SMP sampling schedule over the next month. As temperatures near 70 degrees F the sites will reduce fish sampling to reduce stress associated with handling.

Hatchery Release:

Snake River Zone: The Snake River Zone encompasses the Snake River and its tributaries from its confluence with the Columbia River to Hells Canyon Dam. The release of spring Chinook parr to the Selway River was scheduled to end this week. Approximately 300,000 spring Chinook parr were anticipated for this release, which began on July 1st. These spring Chinook parr are not expected to out-migrate until spring 2009 and are unmarked. There were no other scheduled releases of juvenile salmonids to this zone this week and no scheduled releases over the next two weeks.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. There were no releases of juvenile salmonids to the Mid-Columbia river zone this week. Furthermore, no releases are scheduled for this zone over the next two weeks.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. There were no scheduled releases of juvenile salmonids to this zone this week and no releases are scheduled over the next two weeks.

Adult Fish Passage:

The summer Chinook count began June 1st at Bonneville Dam. Daily passage numbers at Bonneville Dam have ranged between 707 and 1,061 adult summer Chinook in the last week. The 2008 summer Chinook count of 72,766 is about 1.73 times greater than the 2007 and 1.14 times greater than the 10 year average. The summer Chinook jack count of 10,908 had 1,043

fewer fish than the 2007 count and 1.40 times greater than the 10 year average to date. The adult summer Chinook count total at The Dalles Dam was 59,117, about 81.2% of the Bonneville passage total to date. A total of 47,805 summer Chinook have passed McNary Dam. The adult summer Chinook count total at Lower Granite Dam in the Snake River was 20,844 as of July 17th. The 2008 adult summer Chinook count at Rock Island Dam in the upper Columbia was 23,956 with daily totals ranging from 708 to 1,253.

As of July 17th, 65,540 steelhead had passed Bonneville Dam. The 2008 count was 2.17 times greater than the 2007 count of 30,168 and 1.41 times greater than the 10 year average. The 2008 wild steelhead count at Bonneville Dam was 28,504 fish. The daily steelhead counts at The Dalles Dam ranged between 1,819 and 3,022 for the week with a cumulative count of 31,286. About 47.7% of the steelhead counted at Bonneville Dam had passed The Dalles Dam. The majority of the 12,032 steelhead at McNary Dam have moved up into the Snake River with the cumulative count at Ice Harbor now at 6,833 for the season. The cumulative count at Priest Rapids Dam was at 1,755 for the season as of July 14th.

As of July 17th at Bonneville Dam, the adult Shad count was 2,126,678 which was about 83% of the 2007 count of 2,562,106 and only 69% the 10 year average count of 3,080,824. The 2008 Bonneville Dam sockeye count of 212,999 increased about 8.94 times compared to the 2007 count and increased approximately 3.70 times compared to the 10 year average. A total of 182,981 adult sockeye have been counted at Priest Rapids Dam so far this season. Two of the major spawning sites for sockeye in the upper Columbia river zone are Lake Wenatchee and Lake Osoyoos (Okanogan basin). To date, only 520 sockeye have been counted at Ice Harbor Dam in the Snake River.

Daily Average Flow and Spill (in kcfs) at Mid-Columbia Projects

	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
07/04/2008	145.9	0.1	152.4	0.0	162.5	41.9	165.2	37.6	177.7	33.0	188.8	59.5	180.3	42.1
07/05/2008	154.3	0.1	154.9	0.0	165.7	24.9	164.8	33.1	172.6	32.6	181.4	51.1	177.4	36.4
07/06/2008	154.5	0.1	153.8	0.0	162.0	21.6	159.7	13.7	168.7	32.3	178.7	48.8	171.5	31.0
07/07/2008	175.1	0.1	172.2	0.0	183.3	25.9	182.4	39.9	186.9	43.1	196.4	59.7	188.7	33.6
07/08/2008	175.1	0.1	172.4	0.0	180.6	35.0	179.4	24.1	185.4	39.6	197.3	57.7	191.2	40.4
07/09/2008	145.8	0.1	158.5	0.0	170.1	30.0	170.5	18.7	175.6	33.3	190.5	62.0	186.1	32.2
07/10/2008	135.6	0.1	139.2	0.0	150.4	22.6	150.2	22.1	157.5	33.1	158.3	32.4	157.8	24.5
07/11/2008	132.1	0.2	136.4	0.0	146.7	14.4	149.5	14.6	158.0	30.7	168.6	28.1	164.9	21.4
07/12/2008	145.9	0.1	134.1	0.0	139.5	13.8	134.9	11.1	142.7	25.7	151.0	19.8	149.3	20.8
07/13/2008	74.2	0.1	82.2	0.0	121.5	12.7	132.6	10.9	143.3	22.5	148.5	19.9	153.9	21.3
07/14/2008	136.7	0.1	126.6	0.0	105.3	10.5	95.7	12.2	101.4	30.3	144.4	19.2	135.9	20.0
07/15/2008	120.4	0.1	131.2	0.0	134.6	9.8	134.2	9.6	137.8	25.6	121.6	17.2	111.1	19.7
07/16/2008	124.3	0.1	120.0	0.0	126.8	9.4	123.6	8.4	125.6	27.2	128.6	17.6	129.8	22.3
07/17/2008	114.2	0.1	120.4	0.0	120.4	9.3	117.8	11.4	121.0	27.1	109.0	19.1	99.2	23.2

Daily Average Flow and Spill (in kcfs) at Snake Basin Projects

	Dworshak		Brownlee	Hells Canyon	Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
Date	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
07/04/2008	13.6	4.1	11.9	12.4	87.9	18.3	85.3	25.7	85.0	17.4	90.3	59.3
07/05/2008	12.9	3.4	10.6	11.1	80.8	18.3	78.5	23.9	77.6	17.6	80.6	33.9
07/06/2008	11.0	1.5	11.1	9.6	73.0	18.2	70.9	21.1	68.3	17.5	71.7	21.5
07/07/2008	9.4	0.0	11.2	14.6	66.8	18.3	66.1	19.8	64.9	17.4	67.9	20.4
07/08/2008	9.5	0.0	11.0	14.4	66.9	18.4	67.2	20.9	65.1	17.1	67.9	20.3
07/09/2008	9.5	0.0	10.1	17.4	63.9	18.4	63.6	18.9	60.8	17.5	63.7	45.4
07/10/2008	9.5	0.0	9.7	14.4	62.2	18.2	61.2	18.4	60.1	17.5	63.6	50.0
07/11/2008	9.4	0.0	9.2	10.4	56.2	18.5	56.5	16.8	54.4	17.4	56.7	22.9
07/12/2008	9.5	0.0	9.9	8.6	51.1	18.4	49.4	14.8	47.6	16.6	51.1	17.1
07/13/2008	9.5	0.0	9.7	11.7	47.2	18.4	43.1	12.9	40.9	15.4	43.5	30.2
07/14/2008	9.5	0.0	11.7	13.0	50.0	18.4	49.2	14.8	46.8	16.9	49.6	36.4
07/15/2008	9.5	0.0	11.5	12.9	47.8	18.4	48.0	14.4	44.2	16.3	47.6	17.4
07/16/2008	9.7	0.2	12.6	14.5	46.3	18.5	42.2	12.6	40.5	16.8	42.1	15.2
07/17/2008	12.0	2.5	---	---	49.0	18.5	46.7	14.0	45.2	17.4	49.0	33.3

Daily Average Flow and Spill (in kcfs) at Lower Columbia Projects

	McNary		John Day		The Dalles				Bonneville	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
07/04/2008	289.9	162.8	283.1	113.8	282.6	112.6	316.1	100.0	78.1	126.6
07/05/2008	267.2	119.3	265.3	85.3	259.0	104.0	289.4	84.5	76.1	117.4
07/06/2008	264.5	106.3	246.6	73.6	237.1	94.8	250.7	84.6	56.6	98.1
07/07/2008	275.1	147.8	281.3	84.5	265.5	106.2	272.0	85.5	63.9	111.2
07/08/2008	272.6	161.7	254.5	76.8	246.3	98.4	268.9	90.4	53.5	113.6
07/09/2008	262.3	127.8	260.3	97.7	254.9	102.1	265.8	88.4	55.4	110.6
07/10/2008	255.8	105.4	231.8	93.0	224.9	89.7	241.4	88.7	41.5	99.8
07/11/2008	227.1	124.9	233.7	74.8	223.9	89.4	238.2	88.2	41.5	96.8
07/12/2008	225.5	135.5	219.8	65.7	220.8	88.1	232.3	89.8	32.1	98.5
07/13/2008	196.0	117.6	182.3	68.9	180.2	72.2	220.9	91.3	21.5	96.2
07/14/2008	202.0	121.3	192.5	76.5	174.6	65.1	178.0	89.7	0.5	75.8
07/15/2008	194.5	88.4	177.1	70.9	165.7	64.9	185.5	85.7	2.1	85.8
07/16/2008	166.4	67.3	156.2	62.8	156.1	62.1	175.7	86.7	2.3	74.8
07/17/2008	166.3	66.0	166.3	52.9	156.1	62.4	163.0	88.6	0.0	62.4

Gas Bubble Trauma Monitoring Results from Representative Sites on the Snake River and Columbia River

Site	Date	Species	Number of Fish	Number w GBT signs	Number w Fin Signs	% Fin GBT	% Severe Fin GBT	Number of Fish with Fin GBT Listed by Highest Rank: Rank 1	Rank 2	Rank 3	Rank 4
Little Goose Dam											
	07/08/08	Chinook + Steelhead	92	0	0	0.00%	0.00%	0	0	0	0
	07/15/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Lower Monumental Dam											
	07/13/08	Chinook + Steelhead	1	0	0	0.00%	0.00%	0	0	0	0
	07/14/08	Chinook + Steelhead	28	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	07/11/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	07/13/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	07/08/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	07/12/08	Chinook + Steelhead	102	1	1	0.98%	0.00%	1	0	0	0
	07/15/08	Chinook + Steelhead	104	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	07/10/08	Chinook + Steelhead	100	3	2	2.00%	0.00%	2	0	0	0
	07/14/08	Chinook + Steelhead	100	1	0	0.00%	0.00%	0	0	0	0
	07/17/08	Chinook + Steelhead	50	0	0	0.00%	0.00%	0	0	0	0

Hatchery Releases Last Two Weeks

Hatchery Release Summary
From: 7/4/2008 to 07/17/08

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	Clearwater Hatchery	CH1	SP	2009	300,000	07-01-08	07-15-08	Selway River	Clearwater River M F
Nez Perce Tribe Total					**300,000**				
Grand Total					**300,000**				

Hatchery Releases Next Two Weeks

Hatchery Release Summary
From: 7/18/2008 to 7/31/2008

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver

Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
7/4	107	107	107	24	122	123	124	20	121	121	122	24	116	118	119	20	117	117	118	24
7/5	106	106	107	24	123	124	125	23	120	121	121	24	116	117	118	23	117	117	117	24
7/6	106	106	107	24	123	124	125	23	120	121	121	24	117	118	119	23	117	117	117	24
7/7	106	107	107	24	122	123	123	22	120	120	120	24	117	118	119	22	116	117	117	24
7/8	106	106	107	24	121	122	122	23	120	120	120	24	116	118	118	23	117	117	117	24
7/9	107	107	107	24	121	122	122	21	120	121	121	24	117	117	119	21	117	117	117	24
7/10	107	108	108	24	120	120	121	21	121	121	121	24	116	117	118	21	116	117	117	24
7/11	104	105	105	24	117	118	123	22	119	119	120	24	115	116	117	22	115	115	116	24
7/12	104	105	105	24	115	116	116	23	118	119	119	24	116	116	118	23	115	116	116	24
7/13	105	106	106	24	115	116	118	24	118	119	119	24	116	117	119	24	117	117	118	24
7/14	106	106	106	25	113	115	118	25	118	118	118	24	117	118	120	25	116	117	117	25
7/15	105	105	106	24	114	114	117	23	117	118	118	24	116	117	118	23	116	116	117	24
7/16	106	106	106	24	111	112	115	22	117	117	118	24	116	116	118	22	116	116	116	24
7/17	106	106	106	24	111	112	116	23	116	117	117	24	115	116	116	23	115	116	117	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
7/4	116	117	117	24	117	117	118	24	124	127	132	24	118	119	119	24	119	120	122	24
7/5	116	116	117	24	116	116	117	24	119	120	123	24	119	120	121	24	120	121	125	24
7/6	116	116	116	24	116	116	117	24	119	120	123	24	118	120	121	24	118	119	121	24
7/7	115	116	116	24	116	117	117	24	119	120	121	24	116	117	117	24	117	118	119	24
7/8	116	116	117	24	116	117	117	24	121	124	134	24	116	116	117	24	117	117	118	24
7/9	116	116	117	24	117	117	117	22	122	124	132	22	117	118	120	24	118	118	120	24
7/10	115	116	117	24	116	117	117	24	119	120	122	24	120	122	123	24	120	123	124	24
7/11	114	114	114	24	114	114	115	24	116	116	117	24	116	116	117	24	116	117	118	24
7/12	114	115	115	24	115	116	116	24	117	117	118	24	115	115	116	24	115	116	116	24
7/13	116	117	118	24	115	116	117	24	117	118	119	24	115	116	116	24	115	116	117	24
7/14	115	116	117	25	115	117	117	25	117	118	119	25	115	116	116	25	115	116	116	25
7/15	115	116	117	24	116	116	116	24	117	118	118	24	115	115	116	24	115	115	116	24
7/16	115	115	116	24	115	116	116	24	117	118	118	24	115	115	116	24	115	116	116	24
7/17	114	115	116	24	116	116	117	23	117	118	119	23	115	115	116	24	115	116	116	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
7/4	118	119	120	24	121	122	122	24	116	117	118	24	119	121	126	24	117	118	122	24
7/5	119	120	121	24	121	122	124	24	115	116	116	24	117	117	119	24	116	117	119	24
7/6	117	118	119	24	120	121	122	24	115	115	115	24	118	119	129	24	116	117	120	24
7/7	116	118	118	24	121	123	123	24	115	115	117	24	117	118	121	24	115	116	117	24
7/8	117	117	117	24	121	122	122	24	114	115	116	24	117	118	123	24	115	117	119	24
7/9	118	118	119	24	121	122	122	24	115	116	117	24	118	119	121	24	115	117	118	24
7/10	118	120	122	24	122	124	125	24	114	116	117	24	116	117	119	24	114	115	116	24
7/11	116	117	118	24	120	121	121	24	112	114	116	24	115	116	116	24	113	115	116	24
7/12	115	116	116	24	118	119	120	24	114	115	117	24	117	118	118	24	116	116	117	24
7/13	115	116	116	24	118	119	119	24	116	117	118	24	117	118	118	24	117	117	117	24
7/14	115	116	116	25	120	120	122	25	114	115	117	24	116	116	117	24	115	116	117	24
7/15	115	116	116	24	118	119	120	24	114	115	116	24	115	116	116	24	114	114	115	24
7/16	114	115	115	24	118	118	118	24	113	114	115	24	115	115	116	24	113	114	115	24
7/17	115	115	116	24	119	119	120	24	---	---	---	0	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Lower Columbia and Snake River Sites

	Priest R. Dnst				Pasco				Dworshak				Clrwtr-Peck				Anatone			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/4	119	120	121	24	114	115	116	24	107	108	109	24	103	104	104	24	103	103	104	24
7/5	118	119	120	24	113	114	115	24	105	106	106	24	103	104	104	24	103	104	105	24
7/6	117	118	120	24	113	114	115	24	102	103	103	24	102	103	104	24	103	104	105	24
7/7	116	117	118	24	112	114	114	24	101	101	102	24	102	103	103	24	103	104	104	24
7/8	118	119	121	24	112	114	114	24	101	102	102	24	102	103	103	24	103	104	105	24
7/9	117	118	119	24	114	115	115	24	102	102	102	24	102	103	104	24	103	104	105	24
7/10	116	117	118	24	112	113	114	24	102	103	103	24	102	103	104	24	103	103	104	24
7/11	114	115	116	24	109	110	111	24	101	101	101	24	101	102	103	24	102	103	104	24
7/12	116	117	117	24	111	112	113	24	101	102	102	24	102	103	104	24	102	103	104	24
7/13	117	117	118	24	112	113	114	24	102	102	103	24	102	103	104	24	103	104	104	24
7/14	116	116	117	24	113	114	115	25	102	102	103	24	102	103	104	25	103	104	104	25
7/15	114	115	115	24	112	112	113	24	102	102	102	24	102	102	103	24	102	103	103	24
7/16	114	115	115	24	111	111	112	24	102	102	104	24	102	103	104	24	102	103	104	24
7/17	---	---	---	0	111	112	112	24	104	105	105	24	104	105	105	24	102	103	104	24

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwtr-Lewiston				Lower Granite				L. Granite Tlwr				Little Goose				L. Goose Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/4	103	104	104	24	105	105	106	24	108	108	109	24	108	108	110	24	112	112	113	24
7/5	103	104	105	24	104	104	104	24	108	108	109	24	107	107	107	24	111	112	112	24
7/6	103	104	105	24	103	103	103	24	108	108	109	24	106	106	107	24	111	111	111	24
7/7	102	104	105	24	102	102	102	24	108	109	109	24	106	106	107	24	111	111	112	24
7/8	102	104	105	24	102	103	103	24	109	109	111	24	106	107	107	24	113	115	134	24
7/9	103	104	105	24	103	103	103	24	109	109	110	24	108	108	108	24	110	111	112	24
7/10	102	104	105	24	102	103	103	24	109	109	110	24	108	108	109	24	111	111	112	24
7/11	102	104	105	24	101	101	101	24	109	110	111	24	108	109	109	24	111	112	112	24
7/12	102	104	106	24	101	102	102	24	110	110	111	24	109	109	110	24	114	115	116	24
7/13	103	105	106	24	100	101	101	24	110	110	111	24	109	109	110	24	113	115	115	24
7/14	103	105	106	25	100	100	101	25	110	110	111	25	108	108	110	25	110	111	112	25
7/15	102	103	104	24	100	101	101	24	110	111	112	24	110	110	111	24	110	111	112	24
7/16	103	105	106	24	101	101	101	24	110	110	111	24	110	110	111	24	113	115	115	24
7/17	104	106	107	24	101	101	102	24	110	110	111	24	109	110	110	24	114	115	115	24

Total Dissolved Gas Saturation Data at Snake and Lower Columbia River Sites

	Lower Mon.				L. Mon. Tlwr				Ice Harbor				Ice Harbor Tlwr				McNary-Oregon			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/4	116	116	117	24	116	117	118	24	115	115	116	24	117	117	119	24	---	---	---	0
7/5	113	114	115	24	115	116	120	24	114	114	114	24	115	116	116	24	---	---	---	0
7/6	111	112	112	24	115	115	116	24	114	114	114	24	115	115	116	24	---	---	---	0
7/7	111	111	111	24	113	114	115	24	113	113	114	24	115	115	116	24	---	---	---	0
7/8	110	110	110	24	113	114	115	24	113	113	113	24	115	115	115	24	---	---	---	0
7/9	110	111	111	24	114	114	116	24	114	114	114	24	115	116	117	24	---	---	---	0
7/10	112	113	114	24	114	114	116	24	114	114	115	24	115	115	117	24	---	---	---	0
7/11	110	110	112	24	115	115	116	24	112	112	113	24	113	114	116	24	---	---	---	0
7/12	109	109	109	24	114	116	117	24	112	112	112	24	112	113	115	24	---	---	---	0
7/13	110	111	111	24	114	115	116	24	113	113	114	24	113	115	115	24	---	---	---	0
7/14	112	112	113	25	116	118	139	25	114	114	115	25	114	116	116	25	---	---	---	0
7/15	113	113	114	24	115	115	116	11	114	114	115	24	113	114	116	24	---	---	---	0
7/16	112	113	113	24	115	115	119	13	114	114	114	24	112	112	113	24	---	---	---	0
7/17	110	111	112	24	115	115	116	24	114	115	116	24	113	114	115	24	---	---	---	0

Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	McNary-Wash				McNary Tlwr				John Day				John Day Tlwr				The Dalles			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
7/4	117	117	117	24	118	118	118	24	114	115	115	24	117	117	118	24	113	113	114	24
7/5	115	115	116	24	115	116	116	24	112	113	113	24	115	116	116	24	113	113	114	24
7/6	113	114	114	24	114	115	115	24	110	111	111	24	114	115	115	24	111	111	112	24
7/7	113	113	114	24	117	118	119	24	109	110	110	24	116	117	117	24	110	111	112	24
7/8	113	113	114	24	118	119	120	24	110	110	111	24	115	117	117	24	111	112	113	24
7/9	114	114	115	24	117	117	117	8	111	112	112	24	117	118	119	24	113	113	114	24
7/10	114	114	114	24	114	114	115	13	111	111	111	24	115	116	117	24	111	112	114	24
7/11	112	113	113	24	116	117	117	24	110	111	112	24	115	115	115	24	111	113	114	24
7/12	111	112	114	24	117	117	118	24	112	113	114	24	115	115	115	24	112	113	114	24
7/13	111	112	113	24	116	116	117	24	114	114	114	24	115	115	116	24	113	114	114	24
7/14	113	113	114	25	116	117	117	25	112	112	113	18	115	116	117	17	113	113	114	24
7/15	114	114	114	24	115	115	116	24	112	112	112	24	115	115	116	24	113	114	114	24
7/16	113	113	114	24	115	116	116	24	111	112	112	21	115	115	116	21	112	112	113	24
7/17	113	113	114	24	115	116	116	24	111	112	112	24	115	115	116	24	110	110	111	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	The Dalles Dnst				Bonneville				Warrendale				Camas\Washougal				Cascade Island			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/4	116	117	117	24	113	113	114	24	---	---	---	0	114	115	115	24	119	121	122	24
7/5	117	118	118	24	113	113	114	24	---	---	---	0	113	113	113	24	118	119	119	24
7/6	115	116	116	24	112	113	113	24	---	---	---	0	112	113	113	24	117	118	118	24
7/7	115	116	117	24	110	111	112	24	---	---	---	0	112	113	114	24	118	118	119	24
7/8	116	117	117	24	112	113	114	24	---	---	---	0	112	113	115	24	118	119	120	24
7/9	117	117	118	24	115	115	115	24	---	---	---	0	114	116	117	24	118	119	120	24
7/10	115	116	116	24	112	113	114	24	---	---	---	0	112	113	114	24	117	118	120	24
7/11	116	117	118	24	110	111	111	24	---	---	---	0	111	112	112	24	117	118	119	24
7/12	117	118	119	24	112	113	115	24	---	---	---	0	112	113	114	24	117	118	120	24
7/13	117	117	118	24	116	116	117	24	---	---	---	0	115	117	118	24	117	117	119	24
7/14	117	117	118	24	115	116	116	25	---	---	---	0	116	117	118	25	117	117	118	25
7/15	117	117	117	24	113	114	114	24	---	---	---	0	115	117	117	24	116	116	117	24
7/16	116	116	116	24	111	112	112	24	---	---	---	0	113	114	114	24	116	116	117	24
7/17	115	115	115	24	109	109	110	24	---	---	---	0	113	114	115	24	117	117	118	24

Two-Week Summary of Passage Indices

Source: Fish Passage Center Updated: 7/18/2008 9:38

Two-Week Summary of Passage Indices

* One or more of the sites on this date had an incomplete or biased sample.
See Sampling Comments: http://www.fpc.org/currentDaily/smpcomments.htm
For clip information see: http://www.fpc.org/CurrentDaily/catch.htm
For sockeye and yearling chinook (Snake only) race information see: http://www.fpc.org/smoltqueries/currentsmpsubmitdata.asp

				COMBINED YEARLING CHINOOK									
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/04/2008		---	---	---	---	409	438	106	0	581	1,513	514
07/05/2008	*	---	---	---	---	408	323	84	2	---	237	120
07/06/2008		---	---	---	---	549	287	133	2	1,018	84	183
07/07/2008	*	---	---	---	---	270	143	72	0	---	90	0
07/08/2008	*	---	---	---	---	0	216	28	0	247	286	238
07/09/2008	*	---	---	---	---	111	76	14	6	---	577	0
07/10/2008	*	---	---	---	---	99	107	0	0	366	237	471
07/11/2008	*	---	---	---	---	57	86	58	0	---	167	237
07/12/2008		---	---	---	---	15	29	23	0	259	119	0
07/13/2008	*	---	---	---	---	0	43	43	1	---	111	116
07/14/2008		---	---	---	---	8	0	36	3	387	139	0
07/15/2008	*	---	---	---	---	16	0	0	0	---	0	87
07/16/2008	*	---	---	---	---	16	16	3	2	0	0	0
07/17/2008	*	---	---	---	---	0	10	13	3	101	118	0
07/18/2008		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**1,958**	**1,774**	**613**	**19**	**2,959**	**3,678**	**1,966**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**8**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**140**	**127**	**44**	**1**	**370**	**263**	**140**
YTD		**56,037**	**78,597**	**19,672**	**13,632**	**3,386,365**	**2,743,349**	**1,971,393**	**22,414**	**1,360,422**	**1,693,757**	**1,290,976**

				COMBINED SUBYEARLING CHINOOK									
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/04/2008		---	---	---	---	12,100	13,402	4,022	294	135,574	66,716	64,108
07/05/2008	*	---	---	---	---	17,392	18,826	3,384	356	---	36,419	56,861
07/06/2008		---	---	---	---	14,580	11,748	3,053	336	166,804	50,453	51,628
07/07/2008	*	---	---	---	---	11,024	15,974	2,175	413	---	49,793	55,034
07/08/2008	*	---	---	---	---	5,680	23,135	2,295	339	238,146	64,305	69,140
07/09/2008	*	---	---	---	---	4,217	13,720	2,572	435	---	60,707	74,049
07/10/2008	*	---	---	---	---	4,635	12,635	1,829	464	86,186	71,531	73,766
07/11/2008	*	---	---	---	---	2,816	12,157	2,726	288	---	37,886	59,633
07/12/2008		---	---	---	---	2,069	5,537	1,314	564	103,859	35,004	52,935
07/13/2008	*	---	---	---	---	5,508	4,342	1,532	345	---	38,165	44,731
07/14/2008		---	---	---	---	4,968	2,786	555	393	40,616	31,791	32,036
07/15/2008	*	---	---	---	---	2,703	4,289	445	167	---	36,252	34,251
07/16/2008	*	---	---	---	---	2,875	6,439	588	265	85,522	47,440	36,340
07/17/2008	*	---	---	---	---	4,179	3,048	500	273	75,744	24,507	37,525
07/18/2008		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**94,746**	**148,038**	**26,990**	**4,932**	**932,451**	**650,969**	**742,037**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**8**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**6,768**	**10,574**	**1,928**	**352**	**116,556**	**46,498**	**53,003**
YTD		**0**	**0**	**2**	**119**	**639,068**	**1,010,836**	**315,324**	**11,564**	**1,645,829**	**1,346,903**	**3,486,580**

Two-Week Summary of Passage Indices

				COMBINED COHO								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/04/2008		---	---	---	---	0	0	0	2	775	213	257
07/05/2008	*	---	---	---	---	0	0	0	5	---	0	240
07/06/2008		---	---	---	---	0	0	0	21	170	0	61
07/07/2008	*	---	---	---	---	0	0	0	8	---	179	0
07/08/2008	*	---	---	---	---	0	0	0	18	247	96	60
07/09/2008	*	---	---	---	---	0	0	0	15	---	0	57
07/10/2008	*	---	---	---	---	0	0	0	6	0	0	0
07/11/2008	*	---	---	---	---	0	0	0	9	---	0	0
07/12/2008		---	---	---	---	0	0	0	3	0	0	0
07/13/2008	*	---	---	---	---	0	0	0	6	---	0	0
07/14/2008		---	---	---	---	0	0	0	8	0	0	0
07/15/2008	*	---	---	---	---	8	0	0	7	---	0	44
07/16/2008	*	---	---	---	---	0	0	0	7	0	0	0
07/17/2008	*	---	---	---	---	0	0	0	8	0	0	0
07/18/2008		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**8**	**0**	**0**	**123**	**1,192**	**488**	**719**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**8**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**1**	**0**	**0**	**9**	**149**	**35**	**51**
YTD		**0**	**0**	**0**	**326**	**96,261**	**166,060**	**142,692**	**52,183**	**169,359**	**362,537**	**358,523**

				COMBINED STEELHEAD								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/04/2008		---	---	---	---	446	438	37	22	0	0	0
07/05/2008	*	---	---	---	---	230	251	15	20	---	0	120
07/06/2008		---	---	---	---	157	108	0	30	0	0	122
07/07/2008	*	---	---	---	---	27	179	0	13	---	0	0
07/08/2008	*	---	---	---	---	56	144	14	17	0	205	298
07/09/2008	*	---	---	---	---	0	268	0	13	---	144	0
07/10/2008	*	---	---	---	---	14	214	14	8	183	0	0
07/11/2008	*	---	---	---	---	0	172	6	18	---	0	0
07/12/2008		---	---	---	---	30	57	0	9	0	0	0
07/13/2008	*	---	---	---	---	16	29	7	8	---	0	0
07/14/2008		---	---	---	---	8	29	0	6	0	0	0
07/15/2008	*	---	---	---	---	0	22	6	9	---	0	44
07/16/2008	*	---	---	---	---	8	75	0	5	53	0	0
07/17/2008	*	---	---	---	---	0	0	0	3	0	0	0
07/18/2008		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**992**	**1,986**	**99**	**181**	**236**	**349**	**584**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**8**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**71**	**142**	**7**	**13**	**30**	**25**	**42**
YTD		**4,565**	**22,292**	**5,891**	**10,708**	**3,239,485**	**3,693,993**	**1,546,154**	**22,753**	**507,202**	**1,132,932**	**450,023**

Two-Week Summary of Passage Indices

				COMBINED SOCKEYE								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/04/2008		---	---	---	---	37	0	0	18	194	213	128
07/05/2008	*	---	---	---	---	0	0	0	20	---	118	120
07/06/2008		---	---	---	---	26	0	0	15	0	0	183
07/07/2008	*	---	---	---	---	0	0	0	25	---	90	125
07/08/2008	*	---	---	---	---	0	0	0	18	0	96	60
07/09/2008	*	---	---	---	---	0	0	0	11	---	0	0
07/10/2008	*	---	---	---	---	0	0	0	9	0	0	236
07/11/2008	*	---	---	---	---	0	0	0	9	---	0	0
07/12/2008		---	---	---	---	0	0	0	2	0	0	0
07/13/2008	*	---	---	---	---	0	0	0	7	---	0	0
07/14/2008		---	---	---	---	0	0	0	14	0	0	0
07/15/2008	*	---	---	---	---	0	0	0	2	---	0	175
07/16/2008	*	---	---	---	---	0	0	0	7	0	0	443
07/17/2008	*	---	---	---	---	0	0	0	2	0	0	367
07/18/2008		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**63**	**0**	**0**	**159**	**194**	**517**	**1,837**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**8**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**5**	**0**	**0**	**11**	**24**	**37**	**131**
YTD		**37**	**0**	**0**	**111**	**24,709**	**36,540**	**45,480**	**38,943**	**222,647**	**331,815**	**143,305**

* See sampling comments http://www.fpc.org/currentDaily/smpcomments.htm

Smolt indices, clipped & unclipped or combined, are presented in the following order: yearling chinook (chinook 1's,) subyearling chinook (chinook 0's), steelhead, coho, and sockeye. Two classes of fish counts are shown in these tables: collection counts, which account for sample rates but are not adjusted for flow; and passage indices, which are collection counts divided by the proportion of water passing through the sampled powerhouse. Passage indices are not population estimates, but are used to adjust collection counts for daily fluctuations in the site's or project's operations. The classes of counts presented in the report are defined below for each site. Most samples occur over a 24-hr period that spans two calendar days. In this report, the date shown corresponds with the sample end date.

Definitions for Smolt Index Counts

WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts
IMN (Collection) = Imnaha River Trap : Collection Counts
GRN (Collection) = Grande Ronde River Trap : Collection Counts
LEW (Collection) = Snake River Trap at Lewiston : Collection Counts
LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts
  Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts
  Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts
  Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts
  Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}
MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts
  Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts
  Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts
  Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.
RIS data collected for the FPC by Chelan Co. PUD/Washington Dept. of Fish and Wildlife.
LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.
LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.
IMN data collected for the FPC by the Nez Perce Tribe.

Two Week Transportation Summary

Source: Fish Passage Center Updated: 7/18/08 9:39 AM

07/04/08 TO 07/18/08

		Species					
Site	Data	**CH0**	**CH1**	**CO**	**SO**	**ST**	**Grand Total**
LGR	Sum of NumberCollected	68,895	1,495	5	50	770	71,215
	Sum of NumberBarged	75,351	1,925	5	59	992	78,332
	Sum of NumberBypassed	853	0	0	0	5	858
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	61	1	0	1	0	63
	Sum of FacilityMorts	115	7	0	0	3	125
	Sum of ResearchMorts	501	0	0	0	0	501
	Sum of TotalProjectMorts	677	8	0	1	3	689
LGS	Sum of NumberCollected	103,705	1,255			1,401	106,361
	Sum of NumberBarged	115,373	1,549			1,916	118,838
	Sum of NumberBypassed	9	0			0	9
	Sum of Numbertrucked	0	0			0	0
	Sum of SampleMorts	24	0			0	24
	Sum of FacilityMorts	310	4			9	323
	Sum of ResearchMorts	0	0			0	0
	Sum of TotalProjectMorts	334	4			9	347
LMN	Sum of NumberCollected	19,609	449			75	20,133
	Sum of NumberBarged	22,890	523			79	23,492
	Sum of NumberBypassed	126	3			14	143
	Sum of Numbertrucked	0	0			0	0
	Sum of SampleMorts	12	1			0	13
	Sum of FacilityMorts	54	2			1	57
	Sum of ResearchMorts	0	0			0	0
	Sum of TotalProjectMorts	66	3			1	70
MCN	Sum of NumberCollected	456,912	1,486	568	92	131	459,189
	Sum of NumberBarged	44,782	60	0	0	0	44,842
	Sum of NumberBypassed	411,960	1,426	568	92	131	414,177
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	52	0	0	0	0	52
	Sum of FacilityMorts	96	0	0	0	0	96
	Sum of ResearchMorts	22	0	0	0	0	22
	Sum of TotalProjectMorts	170	0	0	0	0	170
Total Sum of NumberCollected		649,121	4,685	573	142	2,377	656,898
Total Sum of NumberBarged		258,396	4,057	5	59	2,987	265,504
Total Sum of NumberBypassed		412,948	1,429	568	92	150	415,187
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of SampleMorts		149	2	0	1	0	152
Total Sum of FacilityMorts		575	13	0	0	13	601
Total Sum of ResearchMorts		523	0	0	0	0	523
Total Sum of TotalProjectMorts		1,247	15	0	1	13	1,276

YTD Transportation Summary

Source: Fish Passage Center Updated: 7/18/08 9:39 AM

TO: 07/18/08

		Species					
Site	Data	**CH0**	**CH1**	**CO**	**SO**	**ST**	**Grand Total**
LGR	Sum of NumberCollected	362,813	2,307,990	62,994	12,049	2,071,986	4,817,832
	Sum of NumberBarged	351,288	1,876,374	61,100	11,588	1,693,219	3,993,569
	Sum of NumberBypassed	2,580	425,949	1,848	424	377,930	808,731
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	210	148	2	3	47	410
	Sum of FacilityMorts	1,442	2,730	44	34	790	5,040
	Sum of ResearchMorts	4,782	2,789	0	0	0	7,571
	Sum of TotalProjectMorts	6,434	5,667	46	37	837	13,021
LGS	Sum of NumberCollected	661,687	1,706,901	95,840	21,784	2,309,205	4,795,417
	Sum of NumberBarged	652,500	1,314,109	93,070	21,695	1,589,995	3,671,369
	Sum of NumberBypassed	5,418	389,296	2,765	67	718,741	1,116,287
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	100	40	1	3	13	157
	Sum of FacilityMorts	1,563	3,449	4	19	456	5,491
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	1,663	3,489	5	22	469	5,648
LMN	Sum of NumberCollected	232,530	1,216,450	83,198	28,104	957,117	2,517,399
	Sum of NumberBarged	229,820	276,362	9,246	10,128	230,240	755,796
	Sum of NumberBypassed	2,022	940,234	73,949	17,975	726,648	1,760,828
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	40	39	0	0	22	101
	Sum of FacilityMorts	337	798	3	1	207	1,346
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	377	837	3	1	229	1,447
MCN	Sum of NumberCollected	795,277	752,265	78,620	102,148	276,875	2,005,185
	Sum of NumberBarged	44,782	60	0	0	0	44,842
	Sum of NumberBypassed	749,935	751,376	78,558	102,005	276,615	1,958,489
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	106	112	3	22	25	268
	Sum of FacilityMorts	414	653	56	110	213	1,446
	Sum of ResearchMorts	40	58	3	5	20	126
	Sum of TotalProjectMorts	560	823	62	137	258	1,840
Total Sum of NumberCollected		2,052,307	5,983,606	320,652	164,085	5,615,183	14,135,833
Total Sum of NumberBarged		1,278,390	3,466,905	163,416	43,411	3,513,454	8,465,576
Total Sum of NumberBypassed		759,955	2,506,855	157,120	120,471	2,099,934	5,644,335
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of SampleMorts		456	339	6	28	107	936
Total Sum of FacilityMorts		3,756	7,630	107	164	1,666	13,323
Total Sum of ResearchMorts		4,822	2,847	3	5	20	7,697
Total Sum of TotalProjectMorts		9,034	10,816	116	197	1,793	21,956

Cumulative Adult Passage at Mainstem Dams Through: 07/17

		Spring Chinook						Summer Chinook						Fall Chinook					
		2008		2007		10-Yr Avg.		2008		2007		10-Yr Avg.		2008		2007		10-Yr Avg.	
DAM	EndDate	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	**07/17**	**125545**	**17552**	**67482**	**16860**	**151523**	**9831**	**72766**	**10908**	**41902**	**11951**	**63680**	**7750**	**0**	**0**	**0**	**0**	**0**	**0**
TDA	**07/17**	**95440**	**15801**	**53524**	**15567**	**106828**	**7522**	**59117**	**11063**	**34471**	**9683**	**54135**	**5534**	**0**	**0**	**0**	**0**	**0**	**0**
JDA	**07/17**	**81771**	**14925**	**44005**	**13864**	**89148**	**6122**	**56715**	**12254**	**30706**	**9143**	**49606**	**5301**	**0**	**0**	**0**	**0**	**0**	**0**
MCN	**07/17**	**68085**	**12133**	**39497**	**12393**	**82136**	**6227**	**47805**	**10209**	**26577**	**7438**	**46081**	**4747**	**0**	**0**	**0**	**0**	**0**	**0**
IHR	**07/16**	**53142**	**7757**	**28380**	**7371**	**54980**	**3897**	**22625**	**4887**	**6709**	**2176**	**10818**	**1940**	**0**	**0**	**0**	**0**	**0**	**0**
LMN	**07/17**	**54512**	**6885**	**28397**	**7102**	**52688**	**3599**	**25718**	**2695**	**9718**	**1223**	**10654**	**1497**	**0**	**0**	**0**	**0**	**0**	**0**
LGS	**07/17**	**50401**	**7805**	**23960**	**7227**	**50024**	**3685**	**20307**	**4612**	**6584**	**2507**	**8707**	**1875**	**0**	**0**	**0**	**0**	**0**	**0**
LGR	**07/17**	**50146**	**10946**	**22905**	**9085**	**50643**	**4197**	**20844**	**4831**	**5944**	**2678**	**8553**	**1991**	**0**	**0**	**0**	**0**	**0**	**0**
PRD	**07/14**	**12173**	**620**	**6708**	**489**	**17360**	**563**	**27787**	**905**	**20001**	**593**	**33258**	**1098**	**0**	**0**	**0**	**0**	**0**	**0**
RIS	**07/16**	**12490**	**1119**	**5572**	**2066**	**13979**	**962**	**23956**	**1575**	**17809**	**3432**	**30010**	**2621**	**0**	**0**	**0**	**0**	**0**	**0**
RRH	**07/16**	**4065**	**371**	**2424**	**920**	**5404**	**397**	**15116**	**883**	**11198**	**2106**	**18642**	**1447**	**0**	**0**	**0**	**0**	**0**	**0**
WEL	**07/11**	**2708**	**426**	**2041**	**752**	**3980**	**281**	**6908**	**193**	**3726**	**534**	**7628**	**295**	**0**	**0**	**0**	**0**	**0**	**0**
WFA	**07/05**	**12153**	**254**	**22053**	**209**	**-**	**-**	**0**	**0**	**0**	**0**	**-**	**-**	**0**	**0**	**0**	**0**	**-**	**-**

	Coho						Sockeye			Steelhead			
	2008		2007		10-Yr Avg.				10-Yr			10-Yr	Wild
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2008	2007	Avg.	2008	2007	Avg.	2008
BON	**0**	**0**	**0**	**0**	**0**	**0**	**212999**	**23813**	**57451**	**65540**	**30168**	**46228**	**28504**
TDA	**0**	**0**	**0**	**0**	**0**	**0**	**177250**	**18616**	**48446**	**31286**	**13709**	**22459**	**14538**
JDA	**-1**	**0**	**1**	**0**	**1**	**0**	**191513**	**23333**	**52462**	**25202**	**12677**	**18837**	**10182**
MCN	**0**	**0**	**0**	**0**	**0**	**0**	**145409**	**17317**	**43384**	**12032**	**8582**	**11645**	**4003**
IHR	**-1**	**0**	**0**	**0**	**0**	**0**	**520**	**52**	**34**	**6833**	**5678**	**6284**	**2077**
LMN	**0**	**0**	**0**	**0**	**0**	**0**	**678**	**41**	**32**	**7850**	**6280**	**5890**	**2821**
LGS	**0**	**0**	**0**	**0**	**0**	**0**	**554**	**28**	**36**	**4376**	**3487**	**4141**	**1628**
LGR	**0**	**0**	**0**	**0**	**0**	**0**	**769**	**41**	**38**	**8962**	**11455**	**8939**	**2925**
PRD	**0**	**1**	**0**	**1**	**1**	**0**	**182981**	**20542**	**49099**	**1755**	**323**	**667**	**0**
RIS	**0**	**0**	**0**	**0**	**1**	**0**	**180981**	**21655**	**44114**	**1487**	**297**	**550**	**639**
RRH	**0**	**0**	**0**	**0**	**1**	**0**	**147365**	**16952**	**29147**	**1486**	**347**	**443**	**582**
WEL	**0**	**0**	**0**	**0**	**0**	**0**	**105474**	**10006**	**18969**	**525**	**94**	**81**	**332**
WFA	**0**	**0**	**2**	**0**	**-**	**-**	**0**	**0**	**-**	**17102**	**17057**	**-**	**-**

BON and LGR have switched to video counts so the data is delayed.
*PRD is not posting wild steelhead numbers.
These numbers were collected from USACE, Grant PUD, Douglas PUD, Chelan PUD, ODFW and DART.
Wild steelhead numbers are included in the total. Wild Steelhead are defined as unclipped fish.
Historic counts (pre-1996) were obtained from CRITFC and compiled by the FPC.
Historic counts 1997 to present were obtained from the Corps of Engineers.

Page last updated on: 07/18/08

BON counts from January 1, 2008 to March 14, 2008 (our traditional counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2008	42	0	578	278
2007	22	0	1,677	517